

heating a fill [(4)] of the particles in a reactor [(2)] with a vertically oriented center axis (3); and

exposing the fill at the same time [exposing it] to a treatment gas which is passed [from the bottom to the top] generally upwardly through the reactor [(2)] and the fill [(4)] at a specific flow velocity [, characterized in that]

the treatment gas being a chloric treatment gas [is used] and [that], in the area of the fill [(4)], the treatment gas having [is set to] a treatment temperature of at least 1,000°C and the flow velocity being set to at least 10 cm/s.

2. (Amended) A method according to Claim 1, wherein [characterized in that] the temperature of the treatment gas is set to at least 1,200°C in the area of the fill [(4)].

3. (Amended) A method according to Claim 1 [or 2, characterized in that] wherein the treatment gas lifts up the fill [(4)] by forming a fluidized particle layer

4. (Amended) A method according to claim 3, wherein [characterized in that] the treatment gas is introduced into the fluidized particle layer in the form of a laminar gas flow.

5. (Amended) A method according to Claim 1, wherein [any one of the Claims 1 to 4, characterized in that] the treatment gas is heated, prior to introduction thereof [introducing it]

into the fill [(4)], to the treatment temperature or to a temperature above the treatment temperature.

6. (Amended) A method according to Claim 1, wherein [any one of the Claims 1 to 5, characterized in that pure] inorganic hydrochloric gas is used as the treatment gas.

7. (Amended) A method according to Claim 1, wherein [any one of the Claims 1 to 6, characterized in that] the treatment gas is introduced into the fill [(4)] by means of a gas shower [(5; 23)] underneath the fill [(4)], said shower [comprising] having a [multitude] plurality of nozzle openings distributed laterally of [to] the center axis [(3)].

8. (Amended) A method according to Claim 1, wherein [any one of the Claims 1 to 7, characterized in that] the particles are heated to a temperature in the range of the treatment temperature in the absence [under the exclusion] of air and oxygen.

9. (Amended) A method according to Claim 1, and [any one of the Claims 1 to 8, characterized in that] simultaneously using the treatment gas [is simultaneously used] for air sifting of the fill [(4)].

10. (Amended) A method according to Claim 1, [characterized by] and further comprising a first cleaning stage for the removal of metallic contaminations or their compounds

and [by] a second cleaning stage for the removal of carbon and carbon compounds, [with] an oxygen containing gas being introduced to the treatment gas during the second cleaning stage.

11. (Amended) A method according to Claim 1, wherein [any one of the claims 1 to 10, characterized in that] the treatment gas is circulated.

12. (Amended) A method according to Claim 1, wherein [any one of the Claims 1 to 11, characterized in that] the flow velocity of the treatment gas is set to at least 30 cm/s.

13. (Amended) A device for cleaning SiO₂ particles, said device comprising:
a reactor [(2)] with a vertically oriented center axis [(3)] for receiving
[acceptance of] a fill [(4)] of the SiO₂ particles to be cleaned;
the reactor having [with] a gas inlet for introducing a treatment gas in an area of
the reactor below the fill [(4)] and [with] a gas outlet for discharging the treatment gas from an
area of the reactor above the fill [(4)]; [characterized in that]
the gas inlet comprising [comprises] a gas shower [(5; 23) which has below the
fill (4) - a multitude] having a plurality of nozzle openings below the fill being distributed
laterally [to] of the center axis [(3), for] and introducing the treatment gas into the fill [(4)].

14. (Amended) A device according to claim 13, wherein [characterized in that] the gas inlet comprises a gas heating device which is arranged before the gas shower [(5; 23) seen in the

direction of] relative to flow of the treatment gas.

15. (Amended) A device according to Claim 14, wherein [characterized in that] the gas heating device comprises a heated tubular coil [(7)].

16. (Amended) A device according to Claim 13, wherein [one of the Claims 13 to 15, characterized in that] the gas shower [(5; 23)] is made of quartz glass, silicon carbide or [of] a precious metal.

17. (Amended) A device according to Claim 13, wherein [any one of the Claims 13 to 16, characterized in that] the gas shower is [designed] in the form of a tube [(5; 23) provided with] having the nozzle openings therein.

18. (Amended) A device according to Claim 13, wherein [any one of the Claims 13 to 17, characterized in that] the nozzle openings of the gas shower [(5; 23)] are distributed symmetrically about the center axis [(3)].

19. (Amended) A device according to Claim 13, wherein [any one of the Claims 13 to 18, characterized in that] the reactor [(2)] is closed all around the fill.

Please add the following new claims: